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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,657	06/13/2007	Peter Jonathan Bentley	020884-000014	2391
24239 7590 06/23/2009 MOORE & VAN ALLEN PLLC P.O. BOX 13706 Research Triangle Park, NC 27709			EXAMINER ROBINSON, CHANCEITY N	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 06/23/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,657	Applicant(s) BENTLEY ET AL.	
	Examiner CHANCEITY N. ROBINSON	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicant's request for reconsideration filed on April 8, 2009 was received. Claim 1 has been amended.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on November 10, 2008.

Claim Rejections - 35 USC § 103

3. Claims 1-11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (US 6, 177, 182 B1) in view of Bennett et al. (WO 02/11984 A1).

Regarding claims 1-4, 8 and 10-11, Nguyen discloses a thermally reactive infrared absorption polymer comprising an infrared absorption chromophoric moiety comprising derivatives of indole cyanine dye and benz[e]-indole cyanine dye, which is bonded to the backbone of an alkali-soluble phenolic resin. See column 3, line 40- column 5, line 14. Further, Nguyen discloses indole cyanine dye such as ADS810PO and benz[e]-indole cyanine dye such as ADS805PO, which meets the limitations of the instant application of salts of indole cyanine dye and benz[e]-indole cyanine dye. (See examples 5 and 14). Nguyen discloses a heat sensitive positive working lithographic printing plate precursor comprising a substrate and a layer coated thereon, wherein the layer comprises the near infrared absorption polymer. See example 18 and claim 4. Also, Nguyen discloses a process of manufacture of a heat sensitive positive working lithographic printing plate precursor, said method comprising: a) imagewise exposing the printing plate precursor with a near-infrared laser emitting at between 780 and 850 nm (example 16); and b) developing the precursor in a developing solution to remove the exposed areas. See

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reference claims 11-12 and examples 23-24. Also, Nguyen disclose the drying the coated substrate coated at 80°C to give the plate precursor. See example 17.

Nguyen does not disclose the infrared chromophoric moiety is an indole cyanine dye combined with a benz[e]-indole cyanine dye. However, Bennett et al. disclose a near infrared absorption polymer (abstract and page 15, lines 1-31) comprising of more than cyanine dyes (infra-red radiation absorbing compounds, page 17, lines 1- page 18, line 5) that are covalently bonded to the polymer (page 9, lines 2-3). Bennett et al. teach that the infrared radiation absorbing compounds aids in providing improvement to sensitivity of the coating and its mechanical robustness. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the near infrared absorption polymer of Nguyen to include one indole cyanine dye and also a benz[e]-indole cyanine dye because Bennett et al. teach the infrared radiation absorbing compounds aid in providing improvement to sensitivity of the coating.

Regarding claims 5-6 and 13, Nguyen does not explicitly disclose the number ratio of indole cyanine dye to benz[e]-indole cyanine dye is comprised in the range of 1:1 to 1:5. However, Nguyen recognizes that a mixture of two different cyanine dyes can be combined at different weight ratios. See example 16. Further, Examiner notes a person skilled in art would readily identify the number (molar) ratio of the cyanine dyes presented in the infrared absorption polymer is too large or too small would affect the stability of the coating substrate of the printing plate. The number ratio is therefore optimizable. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify/optimize the cyanine dyes to yield desired

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number (molar) ratio. Discovery of optimum value of result effective variable in known process is ordinarily within skill of art. *In re Boesch*, CCPA 1980, 617 F.2d 272, 205 USPQ215.

Regarding claims 7 and 14, Nguyen does not explicitly disclose the number ratio of the total pendent IR chromophoric moieties relative to the parent alkali-soluble resin is comprised in the range of 1:30 to 1:5 or 1:50 to 1:3. However, Examiner notes a person skilled in art would identify the number ratio of the total pendent IR chromophoric moieties relative to the parent alkali-soluble resin is too large or too small would affect the stability of the coating substrate of the printing plate. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/optimize the total pendent IR chromophoric moieties relative to the parent alkali-soluble resin to yield desired number (molar) ratio. Discovery of optimum value of result effective variable in known process is ordinarily within skill of art. *In re Boesch*, CCPA 1980, 617 F.2d 272, 205 USPQ215.

Regarding claim 9, Nguyen does not explicitly disclose a positive printing plate precursor, wherein the dry coat weight of the coating layer comprising the near infrared absorption polymer is in the range 1.4-1.9 g/m². However, Nguyen discloses a dry coating weight of 2.0 g/m². Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to recognize that the dry coat weight of the coating layer is 2.0 g/m² (reference) and 1.9 g/m² (instant application) are closely related and therefore would be expected to perform in the same manner. The same results of the coating layer having a dry coat weight of 2.0 g/m² as would be expected from the coating layer having a dry coat weight of 1.9 g/m². *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (citing *In re Petering*, 301 F.2d 676, 682, 133 USPQ 275, 280 (CCPA 1962)) (MPEP 2131.03).

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4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (US 6,177,182 B1) in view of Bennett et al. (WO 02/11984 A1) as applied to claims 1-11 and 13-15 are above, and further in view of Tao et al. (US 6,939,663 A1).

Regarding claim 12, Nguyen does not disclose the resin is a novolak resin. However, Tao et al. disclose a method for forming a positive working lithographic printing plate comprising a layer of an imageable coating over a substrate, wherein the imageable coating composition comprises of a novolak resin. See column 5, lines 36-52. Therefore, it would have been obvious to one of ordinary skill in the art to modify the resin of Nguyen as a novolak resin because Tao et al. disclose the novolak resins are thermoplastic commonly used in lithography and allows for on-press development.

Response to Arguments

5. Applicant's arguments, see pages 4-7, filed 04/08/2009, with respect to the rejection(s) of claim(s) 1-4, 8 and 10-11 under 102 (b) rejection of Nguyen (US 6, 177, 182 B1) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nguyen (US 6,177,182 B1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHANCEITY N. ROBINSON whose telephone number is (571)270-3786. The examiner can normally be reached on Monday to Thursday: 7:30 am-6:00 pm eastern time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chanceity N Robinson/
Examiner, Art Unit 1795

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795